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| EXAMINER | |
|---|---|
| GRANT II, JEROME | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2626 | |

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/745,027 | SZUMLA, THOMAS P. | |
| | Examiner | Art Unit | |
| | Jerome Grant II | 2626 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *35-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-13,16-19,21-25,27 and 30-34* is/are rejected.

7)☒ Claim(s) *10,14,15,20,26,28 and 29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

JEROME GRANT II
PRIMARY EXAMINER

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## Detailed Action

## Restriction

1.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-34 are, drawn to a black/white color processing means with a printing device that receives data from a raw data means and a host machine, classified in class 358, subclass 1.15.

II. Claim 35-40 are, drawn to a color image printing process, classified in class 358, subclass 501.

2.

The inventions are distinct, each from the other because: the first group, Group I is directed toward the acquisition of raw image data which is fed to a host and then to a printer. Raw data is also sent through an intermediate process before being controlled by a printer. The raw data appears to be only gray scale or black and white images.

3.

The invention to group II on the other hand, is directed to color image processing having a plurality of slots for rendering color imaging. Image information appears to come from a host, whereas in the first group, image data is obtained from the raw image generation means as well as from a host. Moreover, in the second group, there is no intermediate transformation from the raw data to the control device that is fed to a printer. Hence, the two groups have drastically different structures, and achieve different means and/or objectives from each other.

4. Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are such as have been described above.

5.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7.

During a telephone conversation with Mark Bocchetti on or about Aug. 30, 2004 a provisional election was made with traverse to prosecute the invention of claims 1-34 (Group I). Affirmation of this election must be made by applicant in replying to this Office action. Claims 35-40 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 5-9, 12, 13, 16-19, 21-25, 27 and 30-34 rejected under 35 U.S.C. 102(a) as being anticipated by Dan.

With respect to claim 1, Dan teaches a host processing system capable of delivering commands (line 4 of the Solutions) and raw image data, an apparatus for formatting (last 2 lines of the Solution) the raw image and selectively delivering enhanced image data to a print processing subsystem, said apparatus comprising: a first interface 5 coupled to the host processing system 3 adapted for receiving said raw image data; a second interface 8 coupled to the host (through interface 5) to receive command signals; a third interface (12) coupled to said print processing subsystem ; and a controller (2 or 9) adapted to intercept the raw image to produce enhanced image data and further to cause the enhanced image data to be delivered to said print processing subsystem.

With respect to claim 5, see RAM 10 as the front end memory.

With respect to claim 6, see RAM 14 as the back end memory.

With respect to claim 7, the front and back memories are RAMs 10 and 14 respectively.

With respect to claim 8, Dan teaches that the third interface is a printer interface 12 coupled to the back end memory 14 to enhance the print processing system 13.

With respect to claim 9, Dan teaches processors 9 or 12 adapted to received processing instructions as claimed (see the Solution) See also figure 1 where this information can be deduced.

With respect to claim 12, Dan teaches gateway (bus connections interconnecting elements 5-14) communicably coupling said processor to the front end memory 10 and back end memory 14 whereby the processor transmits image data to and from the memories.

With respect to claims 13 and 24, Dan teaches an image data bus (connecting elements 5-14) coupling said first interface to said front end memory; and a first local bus (same as bus connecting elements 5-14) which serves to connect the 2nd interface to processor 9; wherein said gateway communicably couples image data bus to the first local bus. This limitation is inherent since they are one and the same.

With respect to claim 16, Dan teaches that the processor 2 or 9 is an image processor since image data is that which is acquired and printed out.

With respect to claim 17, Dan teaches a ROM 5 or 7 for the purpose claimed.

With respect to claim 18, Dan teaches a RAM 10 or 14 for the purpose claimed.

With respect to claim 19, Dan teaches a device for formatting raw images and selectively delivering enhanced image data comprising: an image data bus section (bus connecting elements 5-14) having an image bus interface adapted to be coupled to a host processing system 3 to transmit the raw image data to a front end memory 10 and a back end memory 14 for receiving the enhanced image and print interface 12 coupled to the back end memory as claimed and for transmitting the enhanced image data to a print processing subsystem 13; a processor bus section (bus connecting 5-14) having an image processor 2 or 9 a processor bus interface adapted to communicate with a print processing instruction between a processor 2 or 9 and a host 3; and gateway coupling (via bus connections to elements 5-14) said image processor to said front end memory 10 and the back end memory 14 whereby the processor formats the raw image data and transmits it to the back end.

With respect to claim 21, this limitation is an inherent feature (since without it neither machines would know how to interface with one another.

With respect to claim 22, Dan teaches the ROM 10 or 14 for the purpose as claimed.

With respect to claim 23, Dan teaches the RAM 5 or 7 for the purpose as claimed.

With respect to claim 25, Dan teaches a plurality of print heads which are an inherent feature with respect to the printer shown in figure 13.

With respect to claim 27, Dan teaches a method of formatting bitmapped image data comprising the steps of : transmitting raw image data, through an image bus interface (bus means for connecting elements 5-14) where the interface is connected to a host processing system 3, to a font end memory 10 ; communicating print processing instructions (ROMs 5 or 7) through a processor bus as claimed; transferring the raw image data from the front memory 10 to the print processor through a gateway (bus connecting elements 5-14 coupling the print processor to the front end memory; formatting the raw image data via said image processor (see the last 2 lines of the Solution) transferring enhanced image data to a back end memory 14, reading said enhanced image data out of said back end memory and transmitting (via interface 12) the enhanced image data readout from the back end memory to a print processing subsystem via a print interface.

With respect to claim 30 downloading (protocols between the host and the printing apparatus) is obtained from memories 5 or 7.

With respect to claim 31, command instructions from a second local bus are obtained via the bus from elements 3 to 5 or from bus lines 4-8.

With respect to claim 32, see the RAM 10, 11 or 14.

With respect to claim 33, the plurality of print heads are inherent with respect to rint engine 13.

9.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4 , 11 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dan.

With respect to claims 2, 3 and 11, Dan teaches all of the subject matter upon which the claim depends except for the specific teaching that the first interface is a bus interface. The examiner submits that to one of ordinary skill in the art, it would have been common knowledge or within the level of ordinary skill, to interchange one type of bus for another in order to serve as a conduit for image data to travel from one source to another.

Hence, it would have bee obvious to replace the interface 5 of Dan with a different type of interface (bus) in order to permit data to travel from one source to another or from one location to another.

With respect to claim 4, it is not clear what type of processor Dan uses. However, the examiner submits that to one of ordinary skill in the art it would have been obvious to exchange one type of processor for another as alternative means of processing image data. Since there is no apparent advantage of one processor over the other, the use thereof is inconsequential and one of ordinary skill in the art would have known to use or replace the specific type of processors , already known in the art, with the one taught by Dan in order to processing image signals.

With respect to claim 34, Dan teaches after data is output from the back end memory 14, it is forwarded to a printing engine (which depending on its type, would inherently have one or more print heads ). Although no specific type of print heads are shown by Dan, it would have been obvious to substitute or replace the print engine 13 of Dan with a print engine that has more than one print head for example, a printer with back-up print heads or for generating an erasure ink or infrared inks.

**10. Claims Objected**

Claims 10, 14, 15, 20, 26, 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 703-305-4391. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams, can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Grant II

JEROME GRANT II
PRIMARY EXAMINER